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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,834

10/21/2005

Hiroto Kidokoro

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06/22/2009

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EXAMINER

BURNEY, RACHEL L

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

06/22/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/528,834	Applicant(s) KIDOKORO, HIROTO	
	Examiner Rachel L. Burney	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05/22/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-13 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-7 and 10-21 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the specific toner compositions of examples 9-14, which are the only examples having the claimed properties, does not reasonably provide enablement for other toner compositions which may have the desired properties. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

Case law hold that applicant's specification must be "commensurately enabling [regarding the scope of the claims]" *Ex parte Kung*, 17 USPQ2d 1545, 1547 (Bd. Pat. App. Inter. 1989) otherwise undue experimentation would be involved in determining how to practice and use applicant's invention. Although the statute itself does not use the phrase "undue experimentation", it has been interpreted to require that the claimed invention be enabled so that any person skilled in the art can make and use the invention without undue experimentation as stated in *Ex parte Forman*, 230 USPQ 546,

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547 (Bd. Pat. App. Inter. 1986) and *In re Wands*, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

Specifically, in *In re Wands* the Court set forth a non-exhaustive list of factors to be considered in determining whether undue experimentation would be involved in making and/or using the claimed invention. These factors include, but are not limited to: (a) the breadth of the claims; (b) the nature of the invention; (c) the state of the prior art; (d) the level of one of ordinary skill; (e) the level of predictability in the art; (f) the amount of direction provided by the inventor; (g) the existence of working examples; and (h) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. Applying these factors to claim 1:

(a) the breadth of the claims

The claim is broad in scope in the sense that it encompasses every toner composition comprising any pigment and any binder, produced by any method, without limitation as to specific ingredients as long as the toner has the claimed properties.

(b) the nature of the invention

The invention relates to a toner composition having particular properties.

(c)-(e) state of the prior art/the level of ordinary skill/the level of predictability

Electrophotography is an old art. However, the art is not without uncertainty.

Toner science lies somewhere between a predictable art and an unpredictable art. The effect of various resins or additives is often predictable. However, when the skilled artisan attempts to manipulate more than one characteristic,

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predictability is lost due to the interaction of ingredients or effect of the preparation method. Applicant's specification shows that minor adjustments, such as the addition of 2 parts of an epoxy resin (comparative example 8), or the absence of 0.125 parts of glycidyl methacrylate (comparative example 9) will form a toner which is outside the claimed ranges.

(f) the amount of direction provided by the inventor

The entirety of the direction offered by the inventive examples (examples 9-14) are directed to a toner composition comprising 90 parts of styrene and 6-10 parts of butyl acrylate. There is no direction provided for other toner compositions.

(g) the existence of working examples

The specification contains only 6 working examples which now fall within the claimed ranges. All of the examples relate to toner having a resin of 90 parts styrene with 6-10 parts of butyl acrylate.

(h) the quantity of experimentation

A large amount of experimentation, on the order of a number of man-years, would be necessary to practice the invention within the full scope of the claims. One of ordinary skill in the art would have limitless combinations with slight variations in compositions and toner processing which may or may not make a toner containing the desired properties.

Claim Rejections - 35 USC § 102/103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-7, 10-13, and 18-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 02/29497 (Oyama).

Oyama discloses a process of forming a toner by mixing a charge control resin with a pigment to disperse the colorant particles. The toner comprises a colorant, a charge control resin, which may be positive or negative and a binder resin (page 3, paragraph 4 – page 4, paragraph 2). The pigment may be a Pigment Red, which may include Pigment Red 122 (page 5, paragraph 5 - page 6, paragraph 1). The charge control resin has a weight average molecular weight of about 2,000 to 50,000 (page 7, paragraph 6). The toner may further comprise a parting agent, such as a polyolefin wax (page 10, paragraphs 2-3), which is the parting agent of the instant application. The toner has a volume average particle diameter (Dv) from 2-10 mm, and a ratio (Dv/Dp) is

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1.7 or less, preferably 1.3 or less. A ratio of the length (rl) to breadth (rs) is in the range of 1 to 1.2 (page 11, paragraphs 4-5). The toner has a tetrahydrofuran insoluble portion in an amount of 80% by weight or less (page 13, paragraph 2). The toner contains a number of colorant particles having a length of at least 0.2 μm counted in an area of 100 μm X 100 μm of a toner which is melted and has a thickness of 20 μm are at 50 or less (page 11, paragraph 3). Oyama does not discuss obtaining a filtrate of the toner dispersed in 100 ml of tetrahydrofuran filtered through a filter with a pore size of 0.45 μm or the pH of the pigment when 6 g of the pigment is dispersed in 100 g of water, however because the chemical composition of the toners are substantially similar, and the process of forming the toner is the same, it would be reasonable to conclude that the properties of the toners would be substantially similar.

Response to Arguments

6. Applicant's arguments, see pages 2-5, filed 04/15/2009, with respect to the rejection(s) of claim(s) 1-7, 10-13, and 18-20 under Masuo have been fully considered and are persuasive with respect to the claim rejections under 35 U.S.C. 102. The examiner has withdrawn this rejection. A new rejection under Oyama has now been made, as discussed above. The examiner states, however the declaration is not commensurate in scope to overcome the rejection. Claim 1 merely states "a pigment" and "a binder resin". The independent claim does not require a charge control resin or the use of a master batch.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US PGPub 2005/0250033 (Oyama), US PGPub 2003/0198882 (Gambayashi), US PGPub 2003/0134220 (Emoto), US PGPub 2003/0027066 (Yamashita), US PGPub 2002/0160289 (Teshima), US PGPub 2002/0128356 (Nakamura), US Patent 5912099 (Kanbayashi) all comprise toners with a styrene-acrylate resin and a Pigment Red, wherein a colorant and charge control resin are pre-mixed in a master batch before the addition of the binder polymer.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachel L. Burney whose telephone number is (571)272-9802. The examiner can normally be reached on Mon-Thurs: 7:30-6:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark F. Huff/
Supervisory Patent Examiner, Art Unit 1795

RLB